

AC-550 POLYIMIDE FOAM

TYPICAL TECHNICAL DATA* Meets BMS 8-300, BAMS 544-006 and DMS 2330

MECHANICAL Density ASTM D 3574, Test A 7.1 kg/m³ 0.44 lb/lt² Load Deflection At 25% Compression Boeing BMS 8-300 156 N/323 cm² 35 lb/50 in² Compression Set At 50% Deflection ASTM D 3574, Test D < 40% < 40% Flexibility Boeing BMS 8-300 No creasing or learing Tensile Strength ASTM D 3574, Test E > 59 kPa > 8.5 psi THERMAL Thermal Conductivity (k) ASTM C 518 at mean temperature of 24°C (75°F) 0.043 W/(m·K) 0.30 (Btu-in)/(hr-ft²-°F) Continuous Use Temperature Recommended maximum 200°C 400°F FLAMMABILITY Oxygen Index ASTM D 2863 30% 30% Vertical Burn: FAR §25.853(a), Appendix F, Part I, (a)(1)(i) 0 seconds 0 seconds Burn length Appendix F, Part I, (a)(1)(i) 0 seconds 0 seconds Dry Ox A Oxidate Emission: FAR §25.853(d), Appendix F, Part V 3 3 3 Toxic Gas Generation: Boeing BMS 8-300. ASTM Not detected Not detected Not detected Not detected Not detected Not	PROPERTY	TEST METHOD	SI VALUE	U.S. VALUE	
Doeing BMS 8-300 156 N/323 cm² 35 lb/50 in²	MECHANICAL				
Compression Set At 50% Deflection ASTM D 3574, Test D < 40% < 40% < 40%	Density	ASTM D 3574, Test A	7.1 kg/m³	0.44 lb/ft ³	
Reachibility	Load Deflection At 25% Compression	Boeing BMS 8-300	156 N/323 cm ²	35 lb/50 in ²	
Tensile Strength	Compression Set At 50% Deflection	ASTM D 3574, Test D	< 40%	< 40%	
### THERMAL Thermal Conductivity (k) ASTM C 518 at mean temperature of 24°C (75°F) Continuous Use Temperature Recommended maximum 200°C 400°F ##################################	Flexibility	Boeing BMS 8-300		No creasing or tearing	
Thermal Conductivity (k) ASTM C 518 at mean temperature of 24°C (75°F) 0.043 W/(m·K) 0.30 (Btu·in)/(hr·ft²·°F) Continuous Use Temperature Recommended maximum 200°C 400°F FLAMMABILITY Oxygen Index ASTM D 2863 30% 30% Vertical Burn: FAR §25.853(a), After flame time Appendix F, Part I, (a)(1)(i) 0 seconds 0 seconds Burn length Appendix F, Part I, (a)(1)(i) 0 seconds 0 seconds 0 seconds Smoke Emission: FAR §25.853(d), Appendix F, Part V 3 3 3 Toxic Gas Generation: Boeing BSS 7239, flaming mode 150 ppm Not detected Not det	Tensile Strength	ASTM D 3574, Test E	> 59 kPa	> 8.5 psi	
temperature of 24°C (75°F) Recommended maximum 200°C 400°F	THERMAL				
Dxygen Index	Thermal Conductivity (k)		0.043 W/(m·K)	0.30 (Btu·in)/(hr·ft²·°F)	
Oxygen Index ASTM D 2863 30% 30% Vertical Burn: FAR §25.853(a), After flame time Appendix F, Part I, (a)(1)(i) 0 seconds 0 seconds Burn length Appendix F, Part I, (a)(1)(i) 0 seconds 0 seconds 1.8 inches Dripping None None None None Smoke Emission: FAR §25.853(d), Some seconds 3 3 Toxic Gas Generation: Boeing BSS 7239, 150 ppm 150 ppm 150 ppm HCN Not detected Not detected<	Continuous Use Temperature	Recommended maximum	200°C	400°F	
Vertical Burn: FAR §25.853(a), Appendix F, Part I, (a)(1)(i) 0 seconds 46 mm 1.8 inches 1.8 inches None Burn length Dripping None None Smoke Emission: D, at 4.0 minutes FAR §25.853(d), Appendix F, Part V 3 3 Toxic Gas Generation: CO HCN Boeing BSS 7239, Boeing BSS 7230, Boeing BSS 7	FLAMMABILITY				
After flame time Burn length Dripping Appendix F, Part I, (a)(1)(i) 0 seconds 46 mm 0 seconds 1.8 inches None Smoke Emission: D _s at 4.0 minutes FAR §25.853(d), Appendix F, Part V 3 3 Toxic Gas Generation: Boeing BSS 7239, CO Boeing BSS 7239, flaming mode 150 ppm 150 ppm HCN HF Not detected Not detected Not detected Not detected Not detected Not detected Not detected Not detected HCI SO ₂ NO _x Not detected Not detected Not detected Not detected Not detected Not detected Dry Oven Aging: Load deflection change Boeing BMS 8-300, ASTM D 3574, Test D and FAR ± 2% ± 2% ± 2% Expendix F, ± 4% ± 4% ± 4% Volume shrinkage Part I, (a)(1)(i) after < 2% 4 cm < 2% 2 cps Vertical Burn - After flame time Vertical Burn - Burn length aging at 70°C (158°F) 0 seconds 0 seconds Vertical Burn - Dripping with ASTM D 573 None None Outgassing: TML ASTM E 595 < 1.0 %	Oxygen Index	ASTM D 2863	30%	30%	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	After flame time Burn length		46 mm	1.8 inches	
CO flaming mode 150 ppm 150 ppm Not detected	Smoke Emission:	FAR §25.853(d), Appendix F, Part V	3	3	
Dry Oven Aging: Load deflection change D 3574, Test D and FAR Compression set change \$25.853(a), Appendix F, Volume shrinkage Part I, (a)(1)(i) after Vertical Burn - After flame time Vertical Burn - Burn length Vertical Burn - Dripping Outgassing: ASTM E 595 TML Boeing BMS 8-300, ASTM ± 2% ± 4% ± 4% × 2% < 2% < 2% O seconds 0 seconds 0 seconds None None None Vertical Burn - Dripping ASTM E 595 TML	CO HCN HF HCI SO ₂		Not detected Not detected Not detected Not detected	Not detected Not detected Not detected Not detected	
Load deflection change D 3574, Test D and FAR $\pm 2\%$ $\pm 2\%$ Compression set change §25.853(a), Appendix F, $\pm 4\%$ Volume shrinkage Part I, (a)(1)(i) after <2% <2% Vertical Burn - After flame time aging at 70° C (158°F) 0 seconds 0 seconds Vertical Burn - Burn length for 7 days in accordance 46 mm 1.8 inches Vertical Burn - Dripping with ASTM D 573 None None Outgassing: ASTM E 595 TML <	AGING/OUTGASSING				
TML < 1.0 % < 1.0 %	Load deflection change Compression set change Volume shrinkage Vertical Burn - After flame time Vertical Burn - Burn length	D 3574, Test D and FAR §25.853(a), Appendix F, Part I, (a)(1)(i) after aging at 70°C (158°F) for 7 days in accordance	$\pm 4\%$ < 2% 0 seconds 46 mm	$\pm 4\%$ < 2% 0 seconds 1.8 inches	
		ASTM E 595			

ACOUSTICAL ABSORPTION COEFFICIENTS FOR FLEXED FOAM

(metric sabins/m² or sabins/ft²)

ASTM C 423 and E 795, Type A Mounting

	Frequency (nz)								
Thick	kness	125	250	500	1000	2000	4000	NRC	
25 mm	(1 inch)	0.15	0.30	0.71	0.94	0.97	0.79	0.75	

*The above are typical values subject to normal manufacturing variation.

AC550-1202

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Page 1 of 1

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